

NOTE ON *CHARYBDIS IHLEI* NOV. SPEC., *CHARYBDIS  
BEAUFORTI* NOV. SPEC., AND *CHARYBDIS  
EDWARDSI* NOM. NOV., FROM THE COLLECTIONS OF  
THE BRITISH MUSEUM (NATURAL HISTORY), LONDON

BY

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The material on which the present paper is based has been found in the collections of the British Museum in 1939, when a grant of the "Linnaeus-fonds" enabled the first named author to pay a short visit to London; it has been brought over to Holland after the war in 1947 by the second author. As it forms an addition to the earlier papers and especially to the thesis of the first named author, the same form of publication has been chosen.

For the drawings of habitus and abdomina we are indebted to Mr. J. F. OBBES.

*Charybdis (Charybdis) ihlei* nov. spec.

(figs. 1 and 4a)

Buntal; December 1, 1900; coll. Shelford. 1 ♂.

Description: the cephalothorax is crossed by the following ridges: 1) a rather curved one between the posterior antero-lateral teeth, which is interrupted by the cervical groove, 2) an unbroken and curved one on the mesogastric region, 3) a short one on each protogastric region, 4) one on the frontal region, which is interrupted in the middle. The cardiac region moreover bears a faint ridge-like and granular elevation.

The front is prominent beyond the inner supra-orbital angles and cut into six teeth. The median teeth are rather broad and blunt, their margins granular; of the less prominent submedian teeth the granular median borders slope rather distinctly laterally and their granular lateral borders run nearly straight backwards; the lateral teeth, with granular borders, are triangular and rather narrow, they are slightly more prominent than the submedian ones.

The antero-lateral border is cut into six teeth; the anterior tooth is very distinctly bifid, the next four are triangular; the fifth tooth is the smallest; the anterior as well as the posterior borders of these teeth are granular. The

anterior border of the sharp, spine-like posterior tooth is granular, its posterior border is smooth.

The postero-lateral margin is rather short and strongly convergent.

The posterior border forms a curve with the postero-lateral borders.

he orbital borders are rather strongly granular. The upper border is cut

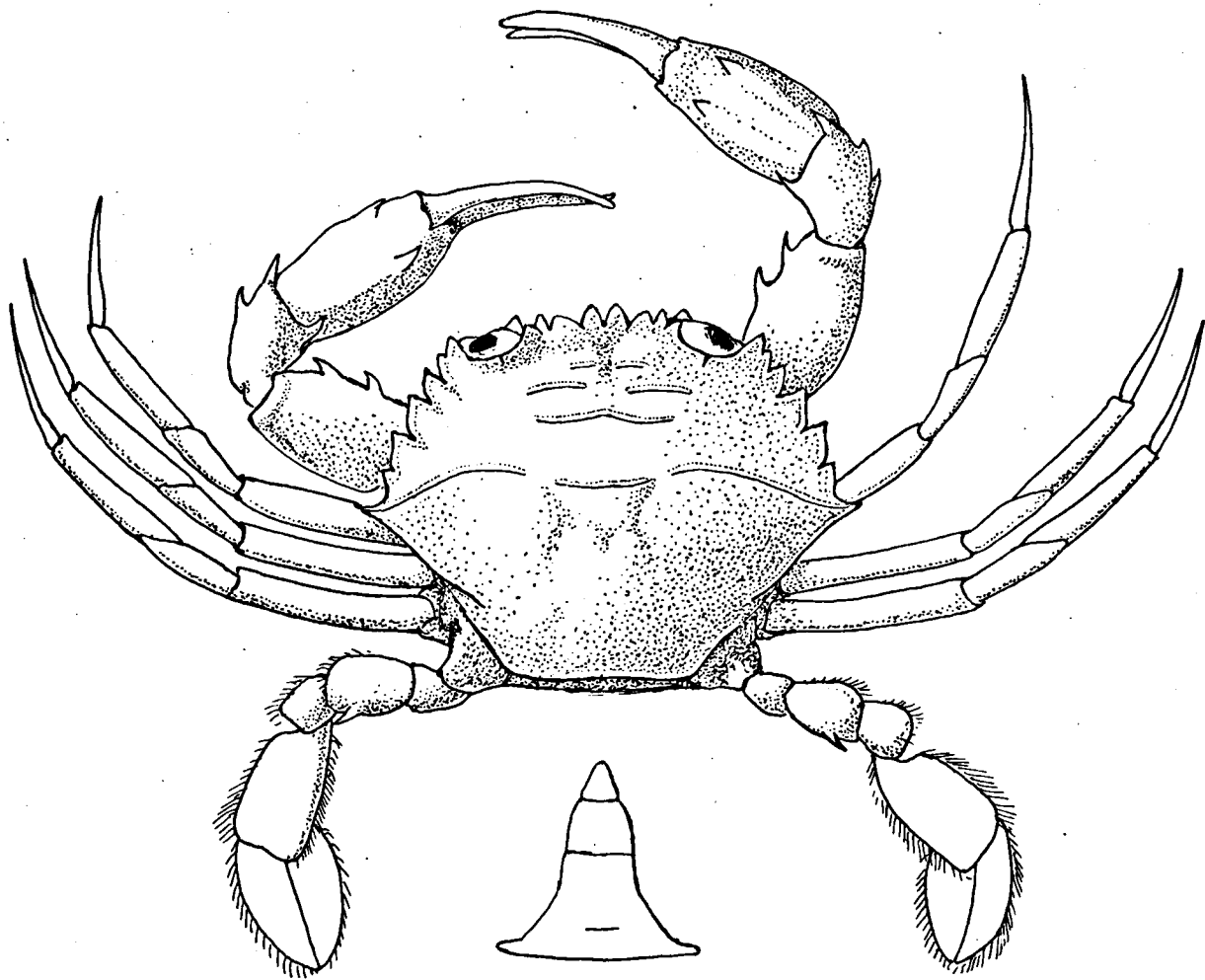


Fig. 1. *Charybdis (Charybdis) ihlei*, dorsal view and male abdomen,  $\times 2\frac{1}{2}$

into three parts by two incisions; the inner supra-orbital angles are narrow, about as broad as the lateral frontal teeth. The lower border is cut into two parts by a lateral incision, of which the median part has a faintly sinuous border. The inner infra-orbital angle is dentiform, the median part of the outer part of the border is lobe-like.

The "basal" antennal joint touches the front, excluding the flagellum from the orbital hiatus; it has a granular crest.

Of the abdomen of the ♂ the third up to the fifth terga are fused; the lateral margins of the sixth tergum are gradually convergent; it is at its anterior border broader than long; the junction between this segment and the ultimate one is not straight, but curved anteriorly. The boundary between the fifth and sixth segments is faintly curved anteriorly.

The chelipeds are subequal. The granular anterior border of the arm has two rather short, but sharp spines. The wrist bears a spine at the inner angle, a small one at the outer angle and a third small one at the lower angle. The outer surface is smooth with two low and granular ridges. The costae of the palm are rather distinct and with very small granules; there are three spines: one at the articulation with the wrist and two on the upper surface, both at the end of a crista and at the same distance from the finger joint. Both fingers are slender; the movable one is longer than the upper border of the palm.

The other pereopods show no specific characters; the merus of the natatory leg is rather short and broad with the usual spine at its posterior border.

♂ pleopod as in fig. 4a.

Remarks: this specimen was labelled *Goniosoma rosacum*, no author mentioned, but it certainly is no *rosaea* (HOMBRON & JACQUINOT) (see LEENE, 1940, p. 184, pl. V). The most characteristic differences are its rather faint granular lines, the bifid anterior antero-lateral tooth; the lesser prominence of the submedian frontal teeth; the more distinctly granular orbital margin, the shape of the ♂ pleopod.

It is more related to *callianassa* (HERBST), in which the first antero-lateral tooth is less distinctly bifid; moreover the shape of the submedian frontal tooth as well as that of the ♂ pleopod is different.

*Charybdis (Charybdis) beauforti* nov. spec.

(figs 2 and 4b)

*Goniosoma affine* Henderson, 1893, Trans. Linn. Soc. Zool. (2), vol. 5, p. 374. Madras, July 15, 1892, J. R. Henderson coll. 3 ♂♂, 1 ♀.

Description of a ♂, c.l. 30.5 mm, c.b. 45.2 mm.

The cephalothorax is covered by a short rather dense pile, the regions are distinctly indicated and are crossed by six granular transverse ridges: 1) a curved one interrupted by the cervical groove, between the posterior antero-lateral teeth, 2) a rather straight one on the mesogastric region, 3) a straight one on each protogastric region, 4) a short one on each frontal region, 5) a short one and posteriorly to it a trace of a second still shorter one on the mesobranchial regions, 6) an interrupted and faintly sinuous one on the cardiac region.

The front is cut into six teeth. The median teeth are slightly prominent

beyond the submedians, which are situated on a somewhat higher level; they are bluntly triangular, their outer margins slightly granular. The submedian teeth are of nearly the same size, the median borders are directed slightly outwards, the lateral borders run nearly straight backwards and all their margins are granular. There is a rather deep rounded incision between the

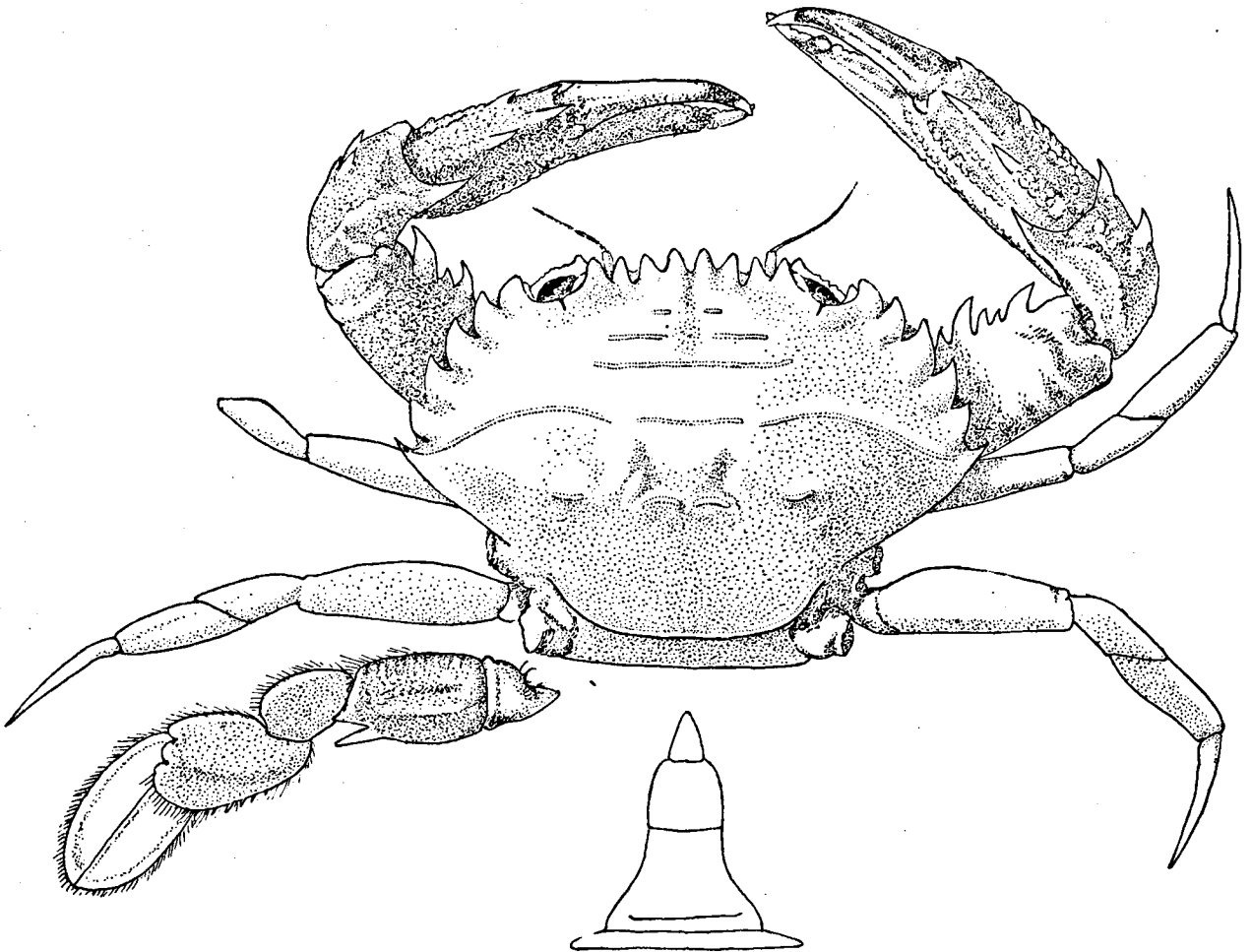


Fig. 2. *Charybdis (Charybdis) beauforti*, dorsal view and male abdomen,  $\times 13\frac{1}{4}$

submedian and lateral teeth; the latter are slightly narrower and acuter than the submedians; their margins are also granular.

The antero-lateral border is cut into six teeth. The first, which is rather blunt, has a nearly straight granular border, the convex outer border is also granular. The second up to the fifth teeth are of about the same shape, with slightly concave more or less granular anterior borders, and convex granular posterior borders and sharp tips. The posterior tooth is spine-like.

The postero-lateral borders converge rather strongly and form a curve with the finely granular slightly curved posterior border.

The granular orbital margins show the usual sutures. The inner supra-orbital angles are broader and blunter than the lateral frontal teeth; the inner infra-orbital angle is dentiform, and the median part of the outer part of the lower orbital border is lobe-like.

The "basal" antennal joint touches the front, excluding the flagellum from the orbit; it has a low granular ridge.

The sixth abdominal segment is about as broad at its anterior border as it is long; the lateral margins are distinctly divergent over two thirds of their length and then they converge.

Of the chelipeds the left is slightly more slender than the right. The anterior border of the arm of the left cheliped bears three spines; between the proximal and the median spine as well as between the median and distal ones a sharp granule is visible; the whole posterior part of this border is sharply granular. On the arm of the right cheliped there are two sharp granules between the distal and median spines, and the sharp granule between the median and proximal spine became here a distinct spine. The upper surface of this merus is granular, the under surface has squamiform granular markings, while the distal part of the anterior surface is granular and moreover hairy; its proximal part is smooth. The wrist is hairy, covered with large squamiform granules; moreover it has a sharp spine at its inner angle and three smaller ones near the outer angle. The palm too is hairy and coarsely granular; there is a small spine near the articulation with the wrist; two spines on the upper margin and two smaller ones on the outer costae; on the outer surface two more costae are formed by large granules, and a third more indistinct one, which is continued on the immovable finger, is situated lower down. Both fingers are channelled; the movable one is longer than the palm.

In the here described ♂, the holotype, some pereopods, e.g. both natatory legs, are missing. In some of the cotypes both or at least one of these natatory legs are present and the remark must be made, that then not only the posterior border shows the usual spine, but that moreover the posterior border of the propodus bears a row of rather strong and distinct spinules.

♂ pleopod as in fig. 4b.

Remarks: this species shows much resemblance to *Charybdis natator* (LEENE, 1938, p. 93, figs. 50 and 51). SHEN indeed changed its name into *natator* (HERBST). Still it differs from this species first of all by the form of its ♂ abdomen and pleopod. Moreover the carapace is more accentuated and especially its transverse granular ridges are different.

The here described ♂ is the smallest specimen, but it is the most intact, in fact only in this specimen both chelipeds are present.

*Charybdis (Goniohellenus) edwardsi* nom. nov.

(figs 3 and 4c)

*Goniosoma truncatum* A. Milne Edwards, 1861, Arch. Mus., vol. 10, p. 380, pl. 34 fig. 4.  
 non *Portunus truncatus* Fabricius, 1798, Suppl. Ent. Syst., p. 365.

Malabar, East Indies. 1 ♂.

Description: the cephalothorax is only slightly convex, the regions are fairly well defined; but hairs as well as granular lines are missing; it is absolutely smooth.

The front is cut into six small and sharp (spini-form) teeth; the median teeth

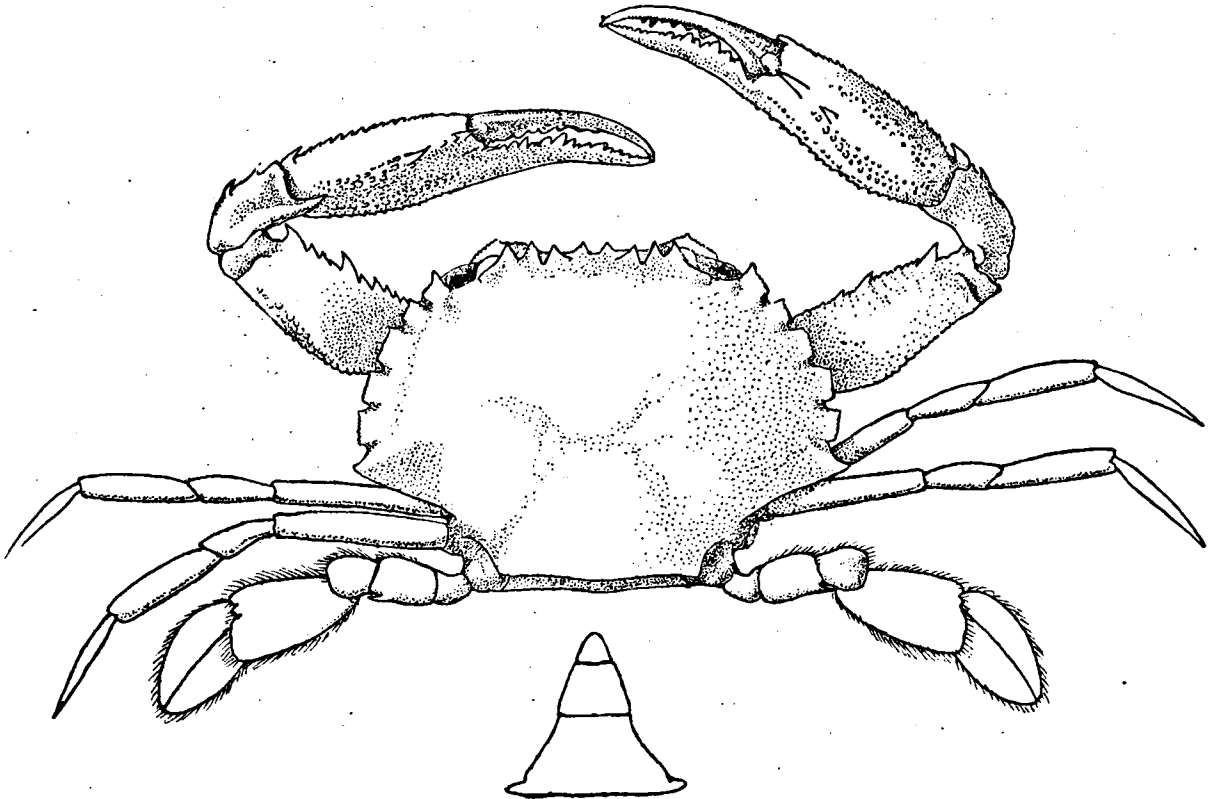


Fig. 3. *Charybdis (Goniohellenus) edwardsi*, dorsal view and male abdomen,  $\times 1\frac{1}{4}$

which are slightly prominent beyond the submedians are very small and sharp; their inner margins have a few granules; on their outer margins the granules are more numerous; these teeth are separated from each other by a short rounded incision and from the submedians by a less deep, but broader and granular curve. These last teeth are on a somewhat higher plane, their tips are rounded and their inner margins distinctly granular; the lateral borders are

far less distinctly granular and run slightly outwards posteriorly; they are separated from the sharp lateral teeth by a V-shaped incision. These lateral teeth are triangular, their margins granular.

The antero-lateral border is cut into six teeth, all exceedingly broad, blunt and truncate, except the posterior one which is small and sharp. The anterior is broad with a granular outer margin and a rather sharp pointed anterior edge; its posterior edge is rounded. The second tooth is much smaller, but of the same shape; the third, fourth and fifth are of about the same size and

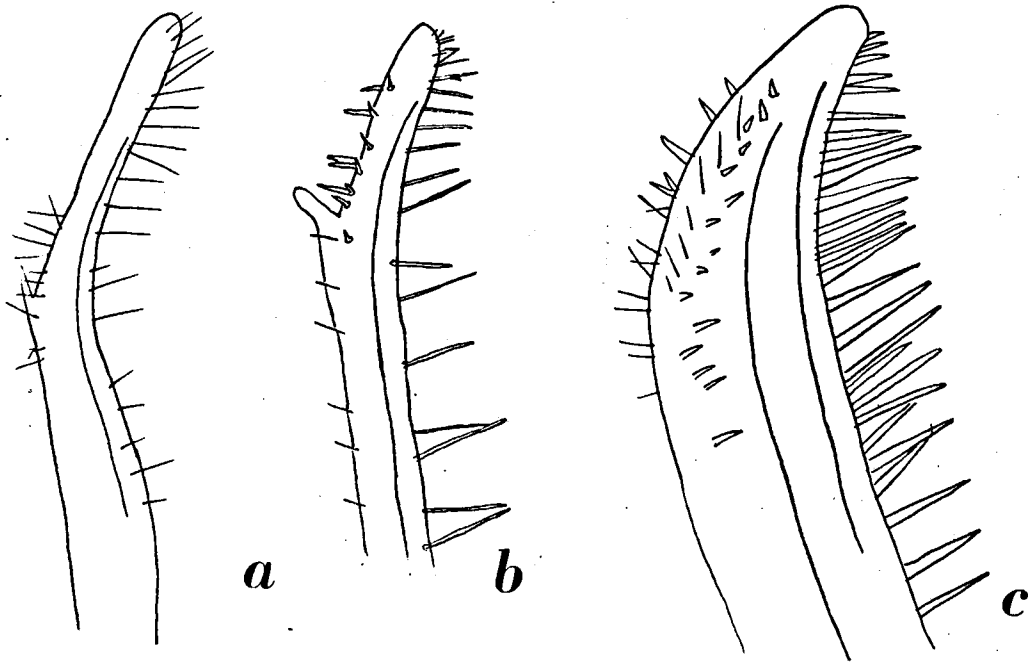


Fig. 4. Apex of first male pleopods of a) *Charybdis (Charybdis) ihlei*, b) *Charybdis (Charybdis) beauforti*, c) *Charybdis (Ganiohellenus) edwardsi*

shape, they are exceedingly blunt and short and their anterior tip is nearly obsolete; their margins are granular. The sixth tooth is short and sharp, much smaller than the preceding ones.

The postero-lateral borders converge posteriorly and are smooth; the posterior border is slightly curved and it forms an angular junction with the postero-lateral borders.

The upper and lower orbital margins are granular and show the usual incisions; both inner angles of the orbit are dentiform; the inner supra-orbital angles are broader than the lateral frontal teeth.

The "basal" antennal joint has a distinct granular ridge; it touches the front and excludes the flagellum from the orbit.

Of the abdomen the third up to the fifth terga are fused; the sixth tergum

is shorter than its breadth at the anterior border; its lateral borders converge gradually; its anterior border is straight; its posterior nearly straight.

The anterior border of the merus of the cheliped is rather sharply granular; three of its spinules are larger than the others, of these the posterior is the smallest; the upper surface is granular, its posterior and inner margins are sharply granular too. The spine at the inner angle of the wrist is large; at the outer margin there are three spinules; moreover the outer surface shows two granular ridges and a group of granules. The palm shows seven granular costae and three spines: one at the articulation with the wrist, one near the articulation with the finger and the third slightly backwards of this last one on the upper border. The chelipeds are subequal and in both the movable finger is about as long as the palm. The joints of the pereopods are smooth, except for the spine at the posterior border of the merus of the natatory leg. ♂ pleopod as in fig. 4c.

Remarks: this ♂ which originally belonged to the dry collections of the British Museum (Natural History), but was afterwards put in spirit, agrees in every respect with A. MILNE EDWARDS'S description of *Goniosoma truncatum* from Malabar and Port Natal. *Goniosoma truncatum* (Fabricius), however, is quite another species, which was fully described by LEENE in 1938 (p. 118, figs. 66 and 67). During her stay at the British Museum LEENE examined there MIERS'S material of *Goniosoma ornata* from both localities mentioned in the Proceedings of the Zoological Society for 1879, p. 33, and his material collected by the Challenger Expedition, and could establish that these specimens as well as those described by HENDERSON in 1893 (l.c.p. 376) and by LAURIE in 1906 (p. 418) belong to *Charybdis truncata* (Fabricius). MILNE EDWARDS'S species must be renamed and we propose the name *edwardsi* at the same time describing here the ♂ from Martaban, mentioned above. This species is most easily recognised by its small and sharp frontal teeth and by its large and truncate antero-lateral teeth.

#### LITERATURE

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